

Notice of Allowability

Application No.

09/922,987

Examiner

Patrick J Connolly

Applicant(s)

ZHU ET AL.

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 18 June 2004.
2. ☒ The allowed claim(s) is/are 1-19 and 21-24.
3. ☒ The drawings filed on 03 August 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

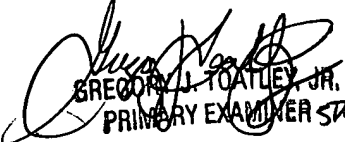
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


GREGORY J. TOATLEY JR.
PRIMARY EXAMINER 2877

DETAILED ACTION

Allowable Subject Matter

Claims 1-19 and 21-24 allowed.

The following is an examiner's statement of reasons for allowance:

As to claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of dynamically determining the spatial position and orientation of a slider including: simultaneously measuring values from on or more beams of light reflected from a slider-disk interface, said values respective corresponding with multiple testing points on the surface of the slider which are space apart from each other, in combination with the rest of the limitations of claim 1.

As to claim 12, the prior art of record, taken alone or in combination, fails to disclose or render obvious, an apparatus for dynamically determining the spatial position and orientation of a slider including: measuring means for simultaneously measuring values from on or more beams of light reflected from a slider-disk interface, said values respective corresponding with multiple testing points on the surface of the slider which are space apart from each other, in combination with the rest of the limitations of claim 12.

As to claim 23, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of dynamically determining the spatial position and orientation of a slider including: simultaneously measuring values from on or more beams of light reflected from a slider-disk interface, said values respective corresponding with multiple testing points on the surface of the slider which are space apart from each other, said values include the relative intensities of two or more wavelengths after reflection, said values are simultaneously measured

Art Unit: 2877

using a series of cascaded mirrors having pinholes, in combination with the rest of the limitations of claim 23.

As to claim 24, the prior art of record, taken alone or in combination, fails to disclose or render obvious, an apparatus for dynamically determining the spatial position and orientation of a slider including: measuring means for simultaneously measuring values from one or more beams of light reflected from a slider-disk interface, said values respectively corresponding with multiple testing points on the surface of the slider which are spaced apart from each other, said measuring means include the relative intensities of two or more wavelengths after reflection, said measuring means are simultaneously measured using a series of cascaded mirrors having pinholes in combination with the rest of the limitations of claim 24.

Art Unit: 2877

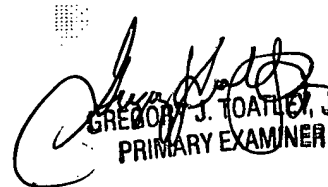
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J Connolly whose telephone number is 571.272.2412. The examiner can normally be reached on 9:00 am - 7:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J Toatley, Jr. can be reached on 571.272.2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

pjc PTL
08.27.2004


GREGORY J. TOATLEY, JR.
PRIMARY EXAMINER 5852877